

SOV/124-57-5-6178

The Effect of Elevated Loading Rates on the Likelihood of Brittle Failure (cont.)

constriction exhibited by the specimens, however, the effect of this variation in the impact velocity was much smaller. On the other hand, it was found that specimens subjected to tensile-impact loads exhibited a degree of constriction averaging some 65-70% greater than that exhibited by specimens subjected only to static tensile loads. In high-speed impact-bending tests made on notched-bar specimens all the steels tested (excepting manganese steel) exhibited some increase in toughness (as measured in terms of the strain characteristics) as a result of an increase in the ram-impact velocity from 100-200 m/sec. Only one 2.79%-Mn steel exhibited a diminished toughness in these circumstances, i. e., 0.75 (nominal toughness-index units) at the 100-m/sec impact velocity, 0.61 at 150 m/sec, and 0.59 at 200 m/sec. One 1.45%-Mn steel exhibited the same degree of toughness at both the 100- and 200-m/sec impact velocities. All the other steels exhibited an increase in toughness of 5-10%. In parallel tests at controlled temperatures the impact strength of all the steels (without exception) was found to decrease steadily from -50°C downward; indeed, even at that temperature one manganese steel already exhibited brittle failure, its impact strength having fallen from 11.0 kgm/cm² (at room temperature) to 1.5 kgm/cm². From all of which the authors conclude that the effect of high impact velocities and the effect of low temperatures are diametrical opposites -- which would seem to contradict their initial thesis to the effect that these

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The Effect of Elevated Loading Rates on the Likelihood of Brittle Failure (cont.)

effects are equipollent. Their theory, therefore, stands in need of refinement. It is the reviewer's opinion that the contradiction involved is apparently traceable to the fact that the ram-impact velocities employed, even those as high as 200 m/sec, did not attain the upper threshold of the cold-shortness range of the tested steels (except in the case of the manganese steel); with respect to the toughness of the steels, on the other hand, an increased impact velocity would, of course, result in increased strain work and increased ductility, this because of the increase both in the over-all resistance to deformation and in the tensile-rupture strength of the metal and possibly, too, because of the adiabatic heating of the metal.

N. N. Davidenkov

Card 4/4

KASHCHENKO, Georgiy Antonovich, prof.. Prinsipal uchastiye: DELLE, V.A.

BOLEHOVITINOV, N.F., prof., doktor tekhn.nauk, retsenzent;

GLEMAN, L.A., prof., doktor tekhn.nauk, red.; LEYKINA, T.L.,

red.izd-va; DLUGOKANSKAYA, Ye.A., tekhn.red.

[Principles of metal properties and metal structure] Osnovy
metallovedeniia. Izd.3., dop. i perer. Moskva, Gos.nauchno-
tekhn.izd-vo mashinostroit.lit-ry, 1959. 395 p. (MIRA 12:10)
(Physical metallurgy)

.24(6)

SOV/170-59-6-5/20

AUTHORS: Delle, V.A., Noskin, A.V.

TITLE: Effect of the Speed of Loading on Ductility of Certain Metals

PERIODICAL: Inzhenerno-fizicheskii zhurnal, 1959, Nr 6, pp 36-40 (USSR)

ABSTRACT: Up to now, the effect exerted on mechanical properties of some metals by high-speed loading has not been investigated sufficiently. Therefore the authors undertook a study of the effect of loading speed on the ductility of some metals, varying this speed in wide limits from those obtainable on Gagarin's press to those corresponding to the blast shock due to propagation of trotyl explosion wave. A number of commercially pure metals and alloys, listed in Table 1, were subjected to tensile tests at three different speeds of loading: 0.008 m/sec, 100 m/sec and a few thousand meters per second [Ref 11]. The method of experimentation and devices employed are described and results are presented in Table 2 which gives values of specific elongation of the specimens and reduction in area of their cross sections. The data obtained show that non-ductile metals, such as cast zinc and gray.

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Effect of the Speed of Loading on Ductility of Certain Metals

foundry iron, do not reveal any noticeable ductility under any conditions of loading. In ductile metals, both local and general ductility increase with an increase in the speed of loading. However, they are not proportional, since the transition from the statical tests on Gagarin's press to the dynamical test on a high-speed ram impact machine leads to a considerably higher rate of ductility increase than the further rise in the loading speed from the dynamical test on the impact machine to the tests with trotyl blasting. The authors conclude that ductility increase observed in ductile metals indicates indirectly that this effect is connected with a purely thermal effect of heat generation by impact, when the heat has no time to dissipate into surrounding space.

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Effect of the Speed of Loading on Ductility of Certain Metals

There are 2 diagrams, 2 tables and 14 references, 11 of which are Soviet, 1 English and 2 French.

ASSOCIATION: Korablestroitel'nyy institut (Ship-building Institute), Lenin-grad.

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89703

18-8200 2808 4016 1413

S/139/61/000/001/011/018
E073/E535

AUTHORS: Delle, V. A. and Noskin, A. V.

TITLE: On the Analogy of the Effect of Increasing the Speed of Deformation and Reducing the Temperature on the Transition of Constructional Steel into the Brittle State

PERIODICAL: Investiya vysshikh uchebnykh zavedeniy, Fizika, 1961, No.1, pp.124-129

TEXT: The effect of the speed of deformation during dynamic tests has not been extensively studied and determination of the properties of metals at impact speeds exceeding 5-10 m/sec involves great difficulties. This is due largely to the absence of machines and recording instruments which would record reliably the behaviour of metals at high deformation speeds. However, with the general tendency to applying higher loading speeds, the influence of the speed of impact on the toughness of constructional steels is usually the least certain characteristic of the mechanical properties of steel. Of the works in this field the most important are those published by the school of N. N. Davidenkov (Refs. 5,6,7 and 9), where it is shown that, particularly, an increase in the
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On the Analogy of the Effect of..... E073/E535

deformation speed from 6×10^{-2} to 8×10^3 cm/sec leads to an increase of the critical temperature of the brittleness of the steel during bending tests. This means that an increase in the deformation speed will lead to a change of the steel into the brittle state and, consequently, this will have a similar effect to that of reducing the temperature. On the basis of this argument it is generally assumed that higher loading speeds have an effect on embrittlement similar to that of below zero temperatures. However, in more recent work cases were observed in which the toughness of constructional steel increased with increasing loading speed. For instance, N. N. Davidenkov (Ref.14) observed an increase in the impact strength of constructional alloy steel with an increase in the loading speed to 100-150 m/sec; G. I. Porodin-Alekseev (Ref.10) (Ref.8 in the text) observed in the case of Steel 5 an increase in the deformation work on increasing the loading speed to 125 m/sec. The authors of the present paper benefited from the availability of apparatus suitable for testing steels at high deformation speeds, for investigating the effect of the loading speed within a wide range on the toughness of constructional alloy steels. A part of

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On the Analogy of the Effect of ... S/139/61/000/001/011/018
E073/E535

the results are described in this paper. The material used in the tests was smelted in a 60 kg induction furnace. The compositions of the individual heats were those given in Table 1. Of these steels the fractures of specimens from heat 1 had a fine crystalline structure in the heat treated state, whilst all the others had a fibrous structure in the heat treated state. From these heats specimens 10 x 10 x 55 mm with Mesnager notches were produced. The heat treatment consisted of quenching from the respective optimum temperature with subsequent tempering at 560 to 680°C for 2 hours, complying with the condition that for all the investigated steels an equal hardness of 200 to 250 Brinell units should be obtained. In fact, the hardness was within the limits 217 to 248 Brinell units. To determine clearly the effect of the speed of the bending tests, three sharply differing loading speeds were applied, namely, 10, 100 and 1000 m/sec. The tests with a loading speed of 1000 m/sec were made on a specially designed test-rig, a sketch of which is shown in Figs. 1a, b, c. The first assembly consists of a hollow cylinder 1 which housed the specimen 2 during the experiments and also a plunger 3, by means of which the specimen

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was fractured. The second assembly consists of a square massive piece 5, the bottom chamber of which carried a trotyl cartridge 4 with a fuse 3, a collet 1, the function of which is to hold together all components in a single unit. Fig.1b shows the instrument in the assembled state. According to theoretical calculations, the speed of propagation of an explosive wave equals 7000 m/sec. However, under the given test conditions it can be assumed that the loading speed would be of the order of 1000 m/sec. The test results are summarized in Fig.2, in which for each melt the respective deformation characteristic (in mm) as a function of the speed of load application is graphed. For each of the five heats the individual columns represent the values obtained respectively at 10 m/sec, 100 m/sec and at the speed of "artillery magnitude". In this graph the sequence is as follows: manganese steel (heat 1), chromium steel (heat 2), nickel steel (heat 3), copper steel (heat 4), chromium-nickel-molybdenum steel (heat 5). For all the steels, except that of heat 1 (2.79% Mn), there was an increase in deformation with increasing loading speed, i.e. the toughness increased with increasing loading speed. The divergence

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observed for the Mn steel is attributed to the fact that this steel is more prone to brittle fracture than the other tested steels; this was proved by sub-zero temperature tests in which it was found that the steel from heat 1 became completely brittle at -50°C . This differing behaviour of the individual steels is explained by unequal thermal effects during high speed impact fracture. It can be assumed that in the first case, i.e. during fracture of a tough steel, the quantity of heat generated and the degree of its localization overshadows the effect of increased loading speed on the toughness, whilst in the case of brittle steel the thermal effect is not sufficient to compensate the adverse effect of the increased deformation speed and, therefore, it will become more brittle with increasing deformation speed (heat 1). It will be the task of further investigations to determine more accurately the metallurgical and physical factors which bring about one or the other type of behaviour of steel under the influence of increased loading speeds. There are 2 figures, 2 tables and 18 references: 15 Soviet and 3 non-Soviet.

ASSOCIATION: Leningradskiy korablestroitel'nyy institut
(Leningrad Shipbuilding Institute)

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On the Analogy of the Effect of...

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E073/E535

SUBMITTED: March 30, 1960

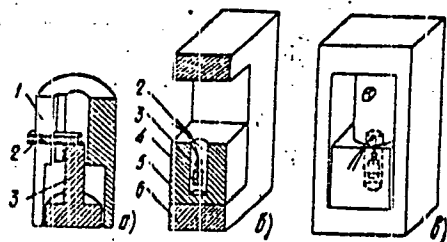


Fig. 1

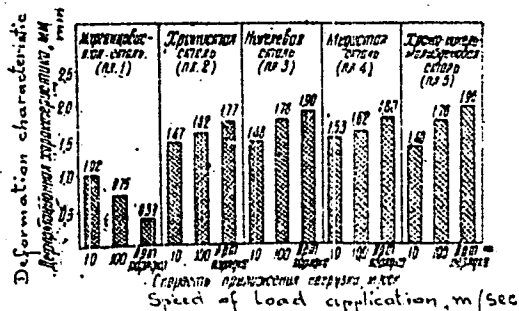


Fig. 2

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Table 1

Химический состав исследуемой стали Таблица 1

Усл. № плав- ки	Тип стали	C	Содержание элементов, %								Вид из- лома в термич. обраб. состоя- нии
			Si	Mn	P	S	Cr	Ni	Mo	Cu	
1	Mn	0,26	0,26	2,79	0,024	0,018	—	—	—	—	Мелко- кристал- лич.
2	Cr	0,24	0,18	0,35	0,013	0,013	2,66	—	—	—	Волок- нистый
3	Ni	0,26	0,26	0,42	0,008	0,022	—	2,81	—	—	—
4	Cu	0,25	0,20	0,53	0,015	0,023	—	—	—	2,90	—
5	Cr-Ni- —Mo	0,26	0,23	0,52	0,031	0,029	1,58	3,0	0,39	—	—

Card 7/7

GULYAYEV, A.P., doktor tekhn.nauk, prof.; DELLE, V.A., doktor tekhn.nauk,
prof.; YUR'YEV, S.F., doktor tekhn.nauk, prof.; BORZDYKA, A.M., doktor
tekhn.nauk; VYAZNIKOV, N.F., kand.tekhn.nauk

"Principles of steel alloying" by [prof.] V.S.Mes'kin. Reviewed
by A.P.Guliaev and others. Stal' 21 no.5:454-455 My '61.

(MIRA 14:5)

(Steel alloys--Metallurgy)

VEYNGARTIN, Abram Mikheylovich, kand. tekhn.nauk; DELLE, Vasiliy
Adolievich, prof., doktor tekhn. nauk; NOSKIN, Aba
Vladimirovich, kand. tekhn. nauk; SOKOLOV, Nikolay
Mikolayevich, kand. tekhn. nauk; TOVSTYKH, Yevgeniy
Vasil'yevich, kand. tekhn. nauk; SHPEYZMAN, Veniamin
Matveyevich, kand. tekhn. nauk; LEBEDEV, K.P., kand. tekhn.
nauk, retsenzent; ALESHIN, D.V., inzh., retsenzent; MES'KIN,
V.S., doktor tekhn. nauk, nauchnyy red.; KLIORINA, T.A.,
red.; TSAL, R.K., tekhn. red.; KRYAKOVA, D.M., tekhn. red.

[Shipbuilding steel] Sudostroitel'naya stal'. [By] A.M.
Veingarten i dr. Leningrad, Sudpromgiz, 1962. 303 p.
(MIRA 15:11)

(Shipbuilding materials) (Steel, Structural)

Distr: 4E3d/4K3c 2 cys

19

Angular distribution of high-energy bremsstrahlung. K. Deloff and R. Gajewski
(Inst. Bada Ł. Jadwiyeh, Warsaw). Bull. acad. polon. sci., Ser. sci. math., astron.
et phys. 6, 529-31 (1958) (in English).--On the basis of the Bethe-Heitler formula
(Heitler, Quantum Theory of Radiation, 1954 (C.A. 48, 12562d)), the differential cross
section was calcd. for bremsstrahlung at large angles and high energies, e.g. 12-15
m.e.v. J. Stecki

4
2

(Retyped clipped abstract)

October 27, 1959

Card 1/1

Amf

DELOFF, Leonard (Zabrze, ul. Dworcowa 9)

~~REDACTED~~

Case of pulmonary tuberculosis with negative tuberculin cutaneous reactions. Gruzlica 22 no.6:425-429 Je '54.

1. Z Kliniki Gruziocy Slaskiej Akademii Medycznej. Kierownik: docent dr L.Deloff.

(TUBERCULIN REACTION,

*negative in pulm. tuberc.)

(TUBERCULOSIS, PULMONARY,

*negative tuberculin reaction)

DELOFF, Lennard; NIEPOLOMSKI, Witold; SCHMIDT, Mieczyslaw.

~~as is received from the source~~

Pulmonary cancer with metastases to the central nervous system
diagnosis by cytological diagnosis of the cerebrospinal fluid.
Polski tygod.lek.10 no.46:1506-1508 14 Nov. '55.

1. Z Kliniki Ftyzjatrycznej Sl. A.M. ; kierownik: prof. dr L.
Deloff i Zakladu Anatomii Patologicznej; kierownik: doc. dr.
W. Niepolomski. Zabrze, Klinika Ftyzjatryczna Slaskiej A.M.

(LUNGS, neoplasms,

metastases to brain, cytol.diag. by exam. of CSF)

(BRAIN, neoplasms,

metastases from lungs, cytol.diag. by exam. of CSF)

(CEREBROSPINAL FLUID, in various diseases,

cancer of brain, metastatic from lungs, diag. exam.)

DELOFF, Leonard; NIEPOLOMSKI, Witold; PUDELSKI, Jozef
~~as was found in the original document~~

Case of pulmonary syphilis. Polski tygod. lek. 11 no.29:
1294-1296 16 July 56.

1. Z Kliniki Ftyzjatrycznej Sl. A.M., kierownik: prof. dr.
L. Deloff i Zakladu Anatomii Patologicznej Sl. A.M.; kierownik:
doc. dr. W. Niepolomski. Zabrze, ul. Dworcowa 9.
(LUNG DISEASES, case reports,
syphilis (Pol))
(SYPHILIS, case reports,
lung (Pol))

DELOFF, Leonard; PUDELSKI, Jozef

Therapeutic value of artificial pneumothorax in the era
of antituberculosis drugs. Polski tygod. lek. 12 no.2:
66-71 7 Jan 57.

1. (Z Kliniki Ftyszjatrycznej Sl. Ak. Med. w Zabrze; kierownik:
prof. dr. L. Deloff). Adress: Zabrze, Dworcowa 9.

(PNEUMOTHORAX, ARTIFICIAL

comparison with chemother. in pulm. tuberc. (Pol))

(TUBERCULOSIS, PULMONARY, ther.

chemother., comparison with artif. pneumothorax (Pol))

DELOFF, L.; PUDELSKI, J.

Sensitivity to tuberculin & to BCG test in patients treated with anti-microbial drugs. Gruzlica 26 no.8:641-654 Aug 58.

1. Z Kliniki Ftyzjatrycznej Slaskiej A. M. Kierownik: prof. dr. L. Deloff.
Adres: Klinika Ftyzjatryczna Sl. Am.

(TUBERCULOSIS, ther.

antibiotics & chemother., eff. on BCG test & tuberculin
sensitivity (Pol))

(BCG VACCINATION

sensitivity, eff. of antibiotics & chemother. in tuberc.
patients (Pol))

(TUBERCULIN REACTION

eff. of antibiotics & chemother. on sensitivity in tuberc.
patients (Pol))

EXCERPTA MEDICA Sec 15 Vol 13/3 Chest Dis. Mar 60

613. BRONCHIAL CARCINOMA IN PATIENTS WITH PULMONARY TB - Rak oskrzelowy u chorych na gruźlicę płuc - Deleff L. Klin. Fizyjat., Śl. A.M., Zabrze - GRUŻLICA 1958, 26/12 (971-981) Illus. 8

An account is given of 12 cases with coexisting pulmonary tb and bronchial carcinoma. In 6 cases with chronic tb the clinical and X-ray symptoms revealed the developing carcinoma. In 5 cases the diagnosis of tb and carcinoma was made in the same time - in 2 cases tb bacilli were found in the sputum and necropsy did not reveal tb lesions. In 1 case only was tb diagnosed during life and the coexisting carcinoma was found on necropsy. In 1 case, successful operation of the middle lobe was performed and the tb changes of the upper left lobe were controlled with chemotherapy. In 4 cases tb lesions as well as neoplastic changes were localized in the same lung lobe, in other cases in the different lobes. Carcinoma may develop from: (1) hyperplastic bronchial epithelium often found with tuberculous fibrotic changes, (2) epithelium of the tb cavity, (3) lymph nodes with tuberculous changes. Diagnosis can be difficult even on necropsy; one should always perform bronchoscopy and cytological investigation of the sputum. The chemotherapy of tb coexisting with bronchial carcinoma is described. The 12 cases described were found in a total of 50,000 persons treated in the above tb department. There were

DELOFF, Leonard

Origin of acquired drug resistance in patients during pulmonary tuberculosis therapy. Polski tygod. lek. 14 no.20:902-907 18 May 59.

1. (Z Kliniki Pysjatriycznej Slaskiej Akademii Medycznej w Zabrsu; kierownik: prof. dr L. Deloff.

(TUBERCULOSIS, PULMONARY, ther.

drug ther. acquired resist. (Pol))

DELOFF, Leonard; ZDUNCZYK, Helena

Virulence of INH-resistant bacilli. Gruzlica 27 no.7:581-620
Jl '59.

1. Z Kliniki Ftyszjatrycznej Sl. A.M. w Zabrze. Kierownik: prof.
dr med. L. Deloff.

(MYCOBACTERIUM TUBERCULOSIS pharmacol.)
(ISONIAZID pharmacol.)

DELOFF, Leonard, prof. dr. (Poljska)

Rate of the appearance of resistance in tuberculous patients.
Tuberkuloza, Beogr. 11 no.3:354-355 '59.
(ANTITUBERCULAR AGENTS ther.)

DELOFF, Leonard; NIEPOLOWSKI, Witold

Character of the tissue reactions in rabbits in the course of experimental tuberculosis treated with ACTH under cover of anti-tubercular drugs. Gruslica 28 no.2:119-123 F '60.

1. Z Kliniki Psychiatrycznej. Kierownik: prof.dr med. L. Deloff
i z Zakładu Anatomii Patologicznej Sl. A.M. w Zabrze. Kierownik:
prof.dr med. W. Niepolowski.

(TUBERCULOSIS exper.)

(CORTICOTROPIN pharmacol.)

DELOFF, Leonard

Current views on the problem of preventing of the drug resistance
phenomenon in tuberculosis. Gruzlica 28 no.9:715-720 S '60.
(ANTITUBERCULAR AGENTS pharmacol)

DELOFF, Leonard; NIEPOLOMSKI, Witold; PUDELSKI, Jozef

A case of alveolar cancer of the lung (pulmonary alveolar or bronchiolar carcinoma). Polski tygod. lek. 16 no.48:1864-1868 27 N '61.

1. Z Kliniki Ftyzjatrycznej Sl. A.M. w Zabrze; kierownik: prof. dr L. Deloff i Zakladu Anatomii Patologicznej Sl. A.M.; kierownik: prof. dr W. Niepolomski.

(CARCINOMA BRONCHIOLAR case reports)

DELOFF, Leonard (Zabrze)

Course of tuberculosis in hormonal disorders. Gruzlica 29 no.1:81-83
Ja "61.

(ENDOCRINOLOGY compl) (TUBERCULOSIS compl)

DELOFF, Leonard (Zabrze)

Adreno-pituitary hormones in clinical pulmonary tuberculosis. Gruzlica
29 no.1:83-84 Ja '61.

(TUBERCULOSIS PULMONARY ther)
(CORTICOTROPIN ther)
(ADRENAL CORTEX HORMONES ther)

DELOFF, Leonard; PUDELSKI, Jozef

Functional disorders of certain organs in pulmonary tuberculosis.
Gruslica 29 no.4:313-334 Ap '61.

1. Z Kliniki Chorob Plucnych Slaskiej AM w Zabrze Kierownik: prof.
dr med. L. Deloff.

(TUBERCULOSIS PULMONARY compl)

DELOFF, Leonard; PUDELSKI, Jozef

Our modification of the effort step test as a simple method for the evaluation of cardio-respiratory function. Gruzlica 29 no.8: 685-697 Ag '61.

1.. Z Kliniki Chorob Plucnych Slaskiej AM Kierownik: prof. dr med.
L.. Deloff.

(RESPIRATION physiol)
(CARDIOVASCULAR SYSTEM physiol)

POLAND

PUDELSKI, Jozef, Phthisiatric Clinic (Klinika Ftyzjatryczna),
Sl.AM [Slaska Akademia Medyczna, Silesian Medical Academy]
in Zabrze (Director: Prof. Dr. med. Leonard DELOFF)

"Function of the Respiratory Tract in Patients with Malignant Tumors of the Lungs."

Warsaw, Polski Tygodnik Lekarski, Vol 18, No 17, 22 Apr 63,
pp 585-588.

Abstract: [Author's English summary modified] The function of the respiratory tract in patients with pulmonary cancer was studied by means of both spirographic and bronchspirometric tests. Whereas in cases of central cancer with no changes of the lungs general examinations showed normal values, bronchspirometric tests revealed defective function of the damaged lung, proportional to the degree of constriction of the bronchus and extent of the tumor. Marked malfunction was noted in pulmonary cancer patients with coexisting emphysema and bronchitis, as well as in cases of generalized pulmonary cancer. Author finds bronchspirometric tests most useful for the purpose. There is one Russian and nine Western references.

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POLAND

DELOFF, Leonard and PUDELSKI, Jozef, Clinic of Pulmonary Diseases (Klinika Chorob Plucnych), Sl.AM [Slaska Akademia Medyczna, Silesian Medical Academy] in Zabrze (Director: Prof. Dr. med. Leonard DELOFF)

"Exertion Tests in Evaluation of the Circulatory-Respiratory System."

Warsaw, Polski Tygodnik Lekarski, Vol 18, No 34, 19 Aug 63, pp 1256-1260

Abstract: [Authors' English summary modified] Latent circulatory-respiratory failure is better detected following exertion than at rest. The authors describe the procedure employed at their clinic and report on the findings in five cases. There are six (6) Western references.

1/1

DELOFF, Leonard; GRZESKOWSKI, Jan; MICHALIK, Marian; OKLEK, Kazimierz

Treatment of pulmonary tuberculosis with large doses of INH.
Gruzlica 31 no.3:201-206 '63.

1. Z Kliniki Ftizjatrycznej Slaskiej AM w Zabrze Kierownik:
prof. dr med. L. Deloff.
(ISONIAZID) (TUBERCULOSIS, PULMONARY)

DELOFF, Leonard; GRZESKOWSKI, Jan; KIMMEL, Kazimierz

Recurrences in patients with pulmonary tuberculosis. Gruzlica
31 no.3:207-212 '63.

1. Z Kliniki Chorob Plucnych Slaskiej AM w Zabrze Kierownik:
prof. dr med. L. Deloff.
(TUBERCULOSIS, PULMONARY)

DELOFF, Leonard

Chronic bronchitis. (A review). Gruzlica 32 no.7:493-499
Je '64.

HORNUNG, Stanislaw; POLONCZYK, Mieczyslaw; DELOFF, Leonard; DERUBSKA, Barbara; GARNUSZEWSKI, Zbigniew; JAROSZEWICZ, Wiwa; JAWORSKI, Jan; MISAKOWSKA, Helena; PARYSKI, Edwin; PECAK, Wladyslaw; PREGOWSKI, Wladyslaw; SOSNOWSKI, Wacław; WESTFAL, Irena; ZIERSKI, Marian

Primary resistance to basic antitubercular drugs in pulmonary tuberculosis patients observed in Poland during the period of 1961-1962. Gruzlica 32 no.8:629-636 Ag '64.

DELOFF, Leonard

Effect of the type of tuberculosis on the result of bacteriological tests. Gruzlica 32 no.10:855-864 O '64

1. Z Kliniki Ftizjatrocznej Slaskiej Akademii Medycznej w Zabrze (Kierownik: prof. dr. med. L. Deloff).

POLAND/Nuclear Physics - Nuclear Reactions.

C

Abs Jour : Ref Zhur Fizika, No 10, 1959, 22170

Author : Deloft, A., Gajewski, R.

Inst : ~~Warsaw University of Technology~~

Title : Angular Distribution of High Energy Bremsstrahlung

Orig Pub : Dull. Acad. polon. sci. Ser. Sci. math., astron. et phys.,
1958, 6, No 8, 529-531, XLII

Abstract : On the basis of the Bethe-Heitler formula, the author
obtains the differential cross section of bremsstrahlung
of electrons scattered by nuclei, for the high-energy
edge of the spectrum and for large angles of observation.

Card 1/1

DELOGRAMMATIK, M.

SUBJECT: India/Scientific Progress in India

25-5-33/35

AUTHOR: Delogrammatik, M.

TITLE: On the Pages of an Indian Periodical (Po stranitsam
indiyskogo zhurnala)

PERIODICAL: Nauka i Zhizn' - May 1957, No 5, p 61 (USSR)

ABSTRACT: The progress of science in India is shown by the articles in the scientific periodical "Current Science" published at Bombay. Numerous subjects on the utilization of atomic energy point out the main problem of the young Republic of India - the industrialization of the country. Much attention is also paid to the utilization of wind power, to the development of the promising fishing industry etc. Since India has a number of prominent scientists who contribute articles to "Current Science", it thus offers valuable reading material. The article contains one picture.

ASSOCIATION:

PRESENTED BY:

SUBMITTED:

AVAILABLE:

Card 1/1

DELOGRAMMATIK, M.

AUTHOR: Delogrammatik, M.

25-2-35/43

TITLE: Thoughts of Progressive France (Mysl' progressivnoy frantsii)

PERIODICAL: Nauka i Zhizn', 1958, # 2, p 76 (USSR)

ABSTRACT: In this article the author gives a detailed review of the tendencies and thoughts promoted in "La Pensée", a progressive, socialist journal published in France. Many prominent French scientists belong to the staff of editors, such as Frederic Joliot-Curie, George Cono, Sorbonne Professor Marcel Prenen, André Vallon, Honorary Professor of the College of France, etc., etc. The journal regularly publishes articles written by Soviet scientists on the recent achievements of Soviet science and engineering.

AVAILABLE: Library of Congress

Card 1/1

DELOGRAMMATIK, M.

Scientists fight for peace ("Scientific World". Reviewed by
M. Delogrammatik), Nauka i zhizn' 28 no.1:74-75 Ja '61,
(MIRA 14:1)

(Science—International collaboration)
(Science—Periodicals)

(

SOV/25-59-7-18/53

AUTHORS: Kuroyedov, A.I., Candidate of Philosophical Sciences,
and Delogrammatik, M.N., Scientific Worker

TITLE: Facts Refute "Technological Determinism"

PERIODICAL: Nauka i zhizn', 1959, Nr 7, pp 40-44 (USSR)

ABSTRACT: The article describes the Western philosophical doctrine
"Technical Determinism" and refutes it as being totally
wrong. In 1950, the number of inventors and efficiency
experts who made pertinent suggestions, including auto-
mation, amounted to 555,000, whereas in 1956, this number
came to 1,131,000. By 1965, a great "jump" toward auto-
mation will be made in the USSR, with at least 1,300 new
automatic lines to be installed in the industry. There
are 4 sketches and 5 Soviet references.

ASSOCIATION: MGU imeni Lomonosova (MGU Imeni Lomonosov)(Delogrammatik,
M.N.)

Card 1/1

DeLone, A. B.
USSR/ Astronomy - Prominences
Card 1/1 Pub. 22 - 14/53
Authors : Idlis, G. M.; Karimov, M. G.; DeLone, A. B.; and Obashev, S. O.
Title : Determination of the intensity of the magnetic field in prominences by the movement of nodes on the picture plane
Periodical : Dok. AN SSSR 102/4, 707-710, Jun 1, 1955
Abstract : Various methods of determining the magnetic field inside prominences are analyzed. Eight references: 3 USA and 5 USSR (1949-1953). Table.
Institution : The Acad. of Sc., Kaz. SSR, Astrophysical Institute, Alma Ata
Presented by: Academician V. G. Pesenkov, February 21, 1955

DELONE, A.B.

KARIMOV, M.G.; DELONE, A.B.; OBASHEV, S.S.

Observations of the solar corona not connected with an eclipse at
the Astrophysics Institute of the Academy of Sciences of the Kazakh
S.S.R. Astron. tsir. no. 157:23-24 F'55. (MLRA 8:10)

1. Astrofizicheskiy institut AN KazSSR
(Sun--Corona)

3,1210

S/035/60/000/007/008/018
A001/A001

Translation from: Referativnyy zhurnal, Astronomiya i Geodeziya, 1960, No. 7,
p. 61, # 6327

AUTHORS: Delone, A.B., Makarova, Ye.A., Kurt, V.G.

TITLE: Lyot Coronograph of GAISH

PERIODICAL: Astron. tsirkulyar, 1959, iyunya 18, No. 203, pp. 3-4

TEXT: A Lyot coronagraph is described which was mounted on the base of a
GAISH high-mountainous expedition near Alma-Ata. The optical diagram of the
instrument is cited (see Figure). ✓

(Diagram)

Translator's note: This is the full translation of the original Russian abstract.

Card 1/1

MARTYNOV, D.Ya., otv. prof., otv. red.; DELONE, A.B., red.;
GEORGIYEVA, G.I., tekhn. red.

[Collection of works of the Moscow State University on the
International Geophysical Year; astronomy] Sbornik trudov
MGU po Mezhdunarodnomu geofizicheskomu godu; astronomia.
Moskva, Izd-vo Mosk. univ., 1962. 79 p. (MIRA 15:8)

1. Moscow. Universitet.
(International Geophysical Year, 1957-1958)
(Astronomy—Observations)

IDLIS, G.M.; KARIMOV, M.G.; DELONE, A.B.; OBASHEV, S.O.

Determining the intensity of the magnetic field in prominences
on the basis of investigation of their internal movements.

Izv.Astrofiz.inst.AN Kazakh.SSR 2:71-96 '56. (MIRA 15:9)

(Sun--Prominences)

(Magnetic fields (Cosmic physics))

L 31777-66 IJP(c)

ACC NR: AP6021650

SOURCE CODE: CZ/0039/65/026/011/0643/0649⁴¹

AUTHOR: Drahos, Vladimir (Engineer; Doctor of sciences); Delong, Armin (Engineer; Candidate of sciences)

ORG: Electronic Optics Laboratory, Institute of Instrumentation, CSAV, Brno (Laborator elektronove optiky, Ustav pristrojove techniky CSAV)

TITLE: Survey magnification in a transmission electron microscope using shadow microscopy

SOURCE: Slaboproudny obzor, v. 26, no. 11, 1965, 643-649

TOPIC TAGS: electron microscope, electron microscopy, magnification, optic system, illumination optics

ABSTRACT: The article deals with the use of shadow microscopy to obtain survey magnification in a transmission electron microscope. The arrangement of the optical system utilized is discussed and relations for utilizable magnification and source dimensions are derived. Special attention is given to the resolution of a shadow microscope and choice of optimum parameters of a double condenser illuminating system. Orig. art. has: 11 figures and 36 formulas. [JPRS]

SUB CODE: 20 / SUBM DATE: 31Mar65 / ORIG REF: 006 / OTH REF: 007

Card 1/1

UDC: 621.385.833

DELONE, B. N.

Boris Nikolayevich

Sur le nombre des representations d'un nombre par une forme cubique binaire a' discriminant negatif. S. R. Acad. Sci., 571 (1920), 336-338.
 Resolution de l'equation indeterminee $px^2y + qx^3 - nxy^2 + y^3 = 1$. C. R. Acad. Sci., 172 (1921), 434-436.
 Resheniye neopredelennogo uravneniya $x^3 + y^3 = 1$. IAN (6), 16 (1922), 273-280.
 Algoritm razdelennykh parallelogrammov. IAN, 15 (1947), 505-538.
 Issledovaniya po geometrii teorii galua. matem. SB., 15 (57), (1944), 243-284.
 Teoriya irratsional'nostey tret'ey stepeni. Trudy matem. in-ta im. steklova, 11 (1940), 1-340.
 Sur la partition reguliere de l'espace a' 4-dimensions. IAN, ser. fiz-matem., 1 (1929), 79.
 O plotneyshikh parallelepipedal'nykh raspolozheniyakh sharilov v prostranstvakh trekh i chetyrekh izmereniy. Trudy matem. in-ta im. steklova, 4 (1933), 63-69.

SO: Mathematics in the USSR, 1917-1947

edited by Kurosh, A. G.,

Markushevich, M. I.,

Rashevskiy, R. K.

Moscow-Leningrad, 1948

Ocherki po istorii akademii nauk SSSR. fiziko-matematicheskie nauri (ocherk po istorii matematiki sostavili B. V. Gnedenko, B. N. Delone, M. B. Keldysh, continued

DELOV, B. N.

L. A. Lyusternik, I. G. Petrovskiy, L. S. Pontryagin, S. L. Sobolev). M.-L.
izd. AN (1945).

Peterburgskaya shkola teorii chisel. M.-L., Izd. AN (1947), 1-419.

DELONE, B.N.

[Academician Pafnutii L'vovich Chebyshev and the Russian school of mathematics; speech at a ceremonial meeting of the anniversary session of the Academy of Sciences of the U.S.S.R.] Akademik Pafnutii L'vovich Chebyshev i russkaia shkola matematiki; rech' na torzhestvennom zasedanii Iubileinoi sessii Akademii nauk SSSR, Moskva, Izd. Akad.nauk SSSR, 1945. 8 p. (MIRA 12:6)

1. Chlen-korrespondent AN SSSR (for Delone).
(Chebyshev, Pafnutii L'vovich, 1821-1894)

Delone, B. N.

Delone, B. N. On a duplicator linkage of Prof. N. B. Zhukovskii. Akad. Nauk SSSR. Trudy Sem. Teorii Mashin i Mechanizmov 2, 101 (1947). (Russian)
Let A, B, C, D, E be hinges, $AB = BC = CD = DE$, A and E fixed. If the position C_1, C_2 are symmetric relative to the center O of AE , the corresponding positions M_1 and M_2 coincide. If C describes a circle about O , M will describe the same closed curve twice. The inventor's son gives a four-line proof of this fact.
A. W. Wundheiler.

DELONE, B. N.

Delone, B. N. An algorithm for the "divided cells" of a
lattice. *Mathematical Foundations of Mechanics*, Nank SSSR, Ser. Mat. 11, 505-
518 (1947). (Russian)

The subject of this paper is a new algorithm and its
application to Minkowski's problem of the product of two
nonhomogeneous linear forms in two variables. "Lattice" is

abstract. The first part of the paper is devoted to the
exposition of the theory of minima of indefinite homogeneous
binary quadratic forms, originally due to Markov. In this
theory a decisive part is played by the algorithm for the
development of a real number in a canonical continued
fraction.

The second part of the paper deals with the corresponding
nonhomogeneous problem, which is, in geometrical lan-
guage, the problem of the division of a lattice Γ not containing the origin of the (x, y) -plane. A
"divided cell" is defined as a fundamental cell of Γ with one
vertex in each quadrant. The two edges of a divided cell another can
in general be derived as follows: the two edges into
the x -axis are produced until they cut the y -axis and on
each edge is chosen the pair of neighbouring lattice points
straddling the x -axis; the four points thus obtained are the
vertices of a divided cell. Given a lattice without points on
edges parallel to the coordinate axes, the above algorithm
can be applied repeatedly, forwards and backwards, and
leads to a series of divided cells continuing indefinitely in
both directions. Results: (i) every lattice has at least one
divided cell; (ii) given any one divided cell, every divided
cell can be obtained from it by the algorithm.

To each step in the algorithm corresponds a pair of posi-
tive integers, giving the number of lattice points passed
over in the displacement of each of the two edges originally
cutting the x -axis, and a sign (+ or -) signifying that the
displacement of both is either clockwise or anti-clockwise.
The complete algorithm thus defines a series of pairs of
positive integers with appropriate signs. Result: (iii) given
such a series of pairs of integers and signs, there is, with
certain exceptions, one essentially unique lattice to which it
belongs by the algorithm.

Source: Mathematical Reviews, 11

Vol. 1 No. 1

Dulowitz, D.M.

It follows easily from (I) that, if $\{s\}$ has a lowest bound 1 for all points of Γ , then the determinant of Γ is greater than or equal to 1 (this is Minkowski's theorem). Further results for this type of lattice are as follows: (IV) Every point of Γ such that $\|s\| \leq 1$ is a constant c being the positive constant c such that there exists a Γ_s of this type with determinant $4(1+c)^{-1}$. The Γ_s for different s are equivalent neither to each other nor to the critical lattice Γ_c of the Minkowski theorem (which has determinant 4). Result (V) answers negatively the question whether the minimum determinants in the Minkowski theorem have a discrete structure similar to that of the Markov forms. The lattice Γ_c is obtained according to (III) by taking the defining series to be

$$x^2 + nx + 1, nx + 1, nx - 1, nx + 1, nx - 1, \dots$$

The corresponding product of two nonhomogeneous linear forms is $(1+x^2)x(x+1) - y(y+x-1) + 4n$, which has minimum $4n$ and determinant $2(1+n^2)$.

Finally, it is shown that an obvious extension of the notion of "divided cell" to 3 dimensions is unsatisfactory since a face-centered cubic lattice exists which possesses no divided cells. *F. J. Dyson (Ithaca, N. Y.)*

See also

Source: Mathematical Reviews, Vol 9 No. 7
BNB 4/2

Delone, B. N.

✓ ★ Delone, B. N. Matematika i ee razvitie v Rossii. I - F/W
[Mathematics and its development in Russia.] Izdat.
Pravda, Moscow, 1948. 16 pp.

(sm) *[initials]*

DELONE, B. N.

Delone, B. N. "Academician Pafnutiy L'vovich Chebyshev and the Russian School of Mathematics," In symposium: Yubileynaya sessiya Akad. nauk SSSR 15 iyunya - 3 iyulya 1945 g., Vol. I, Moscow-Leningrad, 1948, p. 126-32, with portrait

SO: U-3264, 10 April 1953, (Letopis 'Zhurnal 'nykh Statey, No. 3, 1949).

DeLone, B. N.

✓ DeLone, B. Obituary: Nikolai Grigor'evič Čebotarëv,
1894-1947. *Izvestiya Akad. Nauk SSSR. Ser. Mat.* 12,
33-140 (1948). (Russian)

Source: Mathematical Reviews,

Vol. 10

No. 5

~~DELONE~~, B.N.; RAYKOV, D.A.; MODENOV, P.S., red.; OSTROUMOVA, R.P.,
tekhn.red.

[Analytical geometry] Analiticheskaia geometriia. Moskva,
Gos.izd-vo tekhniko-teoret.lit-ry. Vol.2. 1949. 516 p.
(MIRA 13:7)

(Geometry, Analytic)

1. DELONE, B.N.
2. USSR (600)
4. Science
7. Book of geometry problems; textbook for teachers in secondary schools. Izd. 2-я Moskva, Uchpedgiz, 1951
9. Monthly List of Russian Accessions, Library of Congress, January, 1953, Unclassified.

DELOND, B. N.

189T55

USSR/Mathematics - Academy of Sciences Sep/Oct 51

"Ivan Matveyevich Vinogradov: On the Occasion of His 60th Birthday," B. N. Delone

"Iz Ak Nauk SSSR, Ser Matemat" Vol XV, No 5, pp 385-394

Born 14 Sep 1891 in village of Mlolyub, Pskovsk District. In 1914 finished at Peterburg U. Since 1918 was professor at Perm'sk State U and later at Petrograd Polytech Inst; in 1925 became professor at Leningrad U. In 1929 nominated an academician. Since 1932 the director of Mathematical Institute Iment Steklov, Acad Sci USSR. In 1941 awarded

189T55

USSR/Mathematics - Academy of Sciences Sep/Oct 51
(Contd)

Stalin 1st prize for works on the theory of numbers; in 1944 awarded the Order of Lenin, and in 1945 Hero of Socialist Work. Lists 116 works between 1917 and 1951, mainly on number theory.

189T55

DELONE, B.N.

PHASE I

TREASURE ISLAND BIBLIOGRAPHICAL REPORT

AID 410 - I

BOOK

Call No.: QA75.D43

Author: DELONE, B. N.

Full Title: SHORT COURSE IN CALCULATING MACHINES, Part 1: SMALL
CALCULATING MACHINES AND CALCULATING INSTRUMENTS

Transliterated Title: Kratkiy kurs matematicheskikh mashin, Chast' 1:
Malye schetnyye mashiny i matematicheskiye
pribory

Publishing Data

Originating Agency: None

Publishing House: State Publishing House of Technical and
Theoretical Literature

Date: 1952

No. pp.: 135

No. of copies: 10,000

Editorial Staff: None

Text Data

Coverage: This book represents an exact rendition of the course read by the author on the above subject in the mechanical and mathematical faculty of Moskva University. The course contains the description only of small calculating machines and instruments, and only those which are widely and permanently used. In the last section the description of a differential analyzer is given. Diagrams, schematic drawings, photos, etc.

1/2

D LONE, B. N.

M. V. Ostrogradskiy's work in the field of mathematical analysis. Priroda, No 2, 1952.

DELONE, B. N.; KUROSH, A. G.; KOLMOGOROV, A. N.; MARKOV, A. A.; GELFOND, A. I.;
MEYMAN, N. N.; VILENKIN, N. Ya.

Algebra

Development of algebra. Usp. mat. nauk 7 No. 3, 1952.

9. Monthly List of Russian Accessions, Library of Congress, _____²November 195~~6~~⁶, Uncl.

USSR/Mathematics - Pedagogy, Olympiad Jul/Aug 52

"Mathematical Life in the USSR: 14th Moscow School Mathematical Olympiad," B. N. Delone, N. D. Vvedenskaya

"Voprosy Matemat Nauk" Vol VII, No 4 (50), pp 180-184

April 51 the Moscow Math Soc together with the Moscow State U and Moscow City Div of Pub Educ conducted subject olympiad of students of middle schools in Moscow (7-10 classes). Lectures were heard from: Prof A. I. Markushevich, Act Mem, Acad Ped Sci RSFSR; Prof V. A. Yefremovich; Prof

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A. A. Kosmodem'yanskii, Corr Mem, Acad Art Sci; Prof A. P. Yushkevich; A. A. Kromod, Dr. Phys-Math Sci; Prof A. O. Gel'fond, Corr Mem, Acad Sci USSR; Prof P. K. Rashevskii; Prof A. Ya. Khinchin, Corr Mem, Acad Sci USSR; Prof Ya. S. Dubnov; Prof A. M. Lopshts; Prof L. A. Lyusternik, Corr Mem Acad Sci USSR; Prof A. G. Kurosh; Prof V. V. Nemvskii; Prof P. S. Aleksandrov, Corr Mem, Acad Sci USSR; Prof A. I. Markushevich, Act Mem, Acad Ped Sci RSFSR; plus a number of docents and candidates. Examples of problems given the students and candidates. Statistical results of solns broken down by classes of students.

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DELONE, B. N.

DELONE, B.N.

PHASE I

TREASURE ISLAND BIBLIOGRAPHICAL REPORT

AID 555 - I

BOOK

Call No.: QA685.D36

Author: DELONE, B. N.

Full Title: SHORT EXPOSITION OF THE PROOF OF THE CONSISTENCY OF
LOBACHEVSKIY'S PLANIMETRY

Transliterated Title: Kratkoye izlozheniye dokazatel'stva
neprotivorechivosti planimetrii Lobachevskogo

PUBLISHING DATA

Originating Agency: Academy of Sciences, USSR. Mathematical Institute
Im. V. A. Steklov

Publishing House: Academy of Sciences, USSR

Date: 1953

No. pp.: 128

No. of copies: 5,000

Editorial Staff: None

PURPOSE: Popular presentation of Lobachevskiy's geometry for the reader
without higher education.

TEXT DATA

Coverage: In the introduction, the author gives a general historical
outline of the science of geometry from Euclid to Lobachevskiy, and
the effect of Lobachevskiy's non-Euclidean geometry on the develop-
ment of the axiomatic methods which through the further works of the
two Bolyais, Gauss and Riemann led to the theory of functions of com-
plex variables (Poincaré) in mathematics and to the theory of relati-

Kratkoye izlozheniye dokazatel'stva
neprotivorechivosti planimetrii Lobachevskogo

AID 555 - I

vity in physics. Chapter I presents axiomatics of the Euclidean plane and of Lobachevskiy's plane. Chapter II discusses the lack of a contradiction within Lobachevskiy's planimetry. Chapter III covers the measurement of angles, lengths and surfaces in Lobachevskiy's plane. Chapter IV includes Lobachevskiy's classification of motions. Chapter V describes Poincaré's model of Lobachevskiy's plane. The first supplement presents the pseudo-sphere of Beltrami, and the second discusses the connection of Lobachevskiy's geometry with the special theory of relativity. Numerous formulae and 99 figures illustrate the text.

No. of References: None given

Facilities: None

2/2

DELONE, B. N.

USSR/Mathematics

Card 1/1

Author : Delone, B. N., Memb. corresp. of AN SSSR

Title : Increase of discriminants of fields of algebraic numbers of given degree

Periodical : Dokl. AN SSSR., 96, Ed. 2. 233 - 236, May 1954

Abstract : The author presents the actual work showing the increase of discriminants of fields of algebraic numbers. For simplification, the author takes into consideration only a case of purely material fields of simple degree n , and he shows that a perfectly analogous result is also obtained for fields of any given degree and signature. A combination of integral points on each of the fields represents in the n -dimensional space of roots an n -dimensional lattice O_m . All O_m lattices have integral rational points. Two references; USSR 1937.

Institution : ...

Submitted : March 13, 1954

DELONE, B.N.

CHEBYSHEV, P.L.; VINOGRADOV, I.M., akademik, redaktor; GEL'FOND, A.O.;
VAVILOV, S.I., akademik, redaktor; PETROVSKIY, I.G., redaktor; BYKOV,
K.M., akademik, redaktor; KAZANSKIY, B.A., akademik, redaktor; GERMENOV,
A.V., redaktor; SHMIDT, O.Yu., akademik, redaktor; ANIKHEYEV,
N.N., akademik, redaktor; SHCHENBAKOV, D.I., akademik, redaktor;
YUDIN, P.F., akademik, redaktor; ~~DELONE, B.N.~~ redaktor; KOSHCHOVANTS,
Kh.S., redaktor; SAMARIN, A.M., redaktor; LEBEDEV, D.M., professor,
redaktor; FIGUROVSKIY, N.A., professor, redaktor; KUZNETSOV, I.V.,
kandidat filonofskikh nauk, redaktor; AUZAN, N.P., tekhnicheskii
redaktor.

[Selected works] Izbrannye trudy. Otvetstvennyi redaktor I.M.Vino-
gradov. Redaktor-sostavitel' A.O.Gel'fond. Moskva, Izd-vo Akademii
nauk SSSR, 1955. 926 p. (MLRA 8:4)

1. Chlen-korrespondent Akademii nauk SSSR (for Delone, Koshtoyants)
(Mathematics)

★ Денон, В. И. [Денон, В. И.] Элементарное доказа-
 тельство непротиворечивости Планиметрии Лоба-
 чевского. [Elementary proof of absence of contradictions
 in the planimetry of Lobachevskii.] Gosudarst. Izdat.
 Tehn. Teor. Lit., Moscow, 1966. 140 pp. 732 rubles.
 In this book an effort is made to prove to readers with
 a secondary school education that the plane geometry of
 Lobachevskii is logically as consistent as the Euclidean
 geometry taught in the schools. The author hopes to provide the learned bodies with a simple reference which they could offer their
 correspondents when asked, who are the authors of the
 original, and irrefutable proof of Euclid's fifth postulate.
 The author's main purpose is accomplished in the first
 two chapters of the book (pp. 25-63). In Ch. I he gives two
 sets of twenty postulates each; one for Euclidean and the
 other for Lobachevskian plane geometry. The first nineteen
 postulates are identical in the two sets; they are those
 of F. Schur (1856-1932) in which the undefined elements
 are point, line, motion. The twentieth postulate in the
 two sets are, respectively, the Euclidean and Lobachev-
 skian parallel postulates.
 In Ch. II affine transformations are studied, particularly
 those which leave invariant a semi-cone of revolution in
 which an element makes an angle of 45° with the axis of
 revolution. This leads the author to the Cayley-Klein

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[DOLING, B. M.]

Euclidean model of the Lobachevskian plane. Hence the conclusion that if the Lobachevskian plane geometry were inconsistent, the same would hold for the Euclidean case.

The chapter is written with consummate skill and great care. The author takes only for granted the rudiments of the mathematical equipment of those for whom the book is intended. Figures are abundant (27 in this chapter, about a hundred in all). Nothing is dismissed cryptically as being "perfectly obvious". And when the phrase occurs it is followed by a suitable explanation. When the author needs the property of the equilateral hyperbola that the product of the distances of its points from the asymptote is constant, he proves the proposition right there, in relation to the circumstances in which the proposition presents itself.

In the remainder of the book the author continues to study the geometry of the Lobachevskian plane. He considers the measure of an angle, length, areas, classification of motions, brings in Poincaré's model and Beltrami's pseudosphere.

The book opens with an excellent introduction on the history of non-Euclidean geometry which the author contributed originally to the journal "Priroda" (Nature) (1956) and closes with an appendix on "The connection between the geometry of Lobachevskii and the special theory of relativity".

N. A. Court (Norman, Okla.)

-F/W

3

2/2

DELOME, B.N.

E.S.Fedorov as a geometrician. Trudy Inst.ist.est.i tekhn. 10:5-12
'56. (MLBA 9:12)
(Fedorov, Evgraf Stepanovich, 1853-1919)

DELONE, B. N.

Lobachevskii's geometry and the development of modern natural science. Priroda 45 no.2:64-71 F '56. (MLBA 9:5)

1. Chlen-korrespondent Akademii nauk SSSR.
(Lobacheskii, Nikolai Ivanovich, 1792-1856) (Science--History)

DELONE, B.N.

In commemoration of a great scientist; the 250th anniversary of
the birth of Leonhard Euler. Priroda 46 no.8:57-62 Ag '57.

(MIRA 10:9)

1. Chlen-korrespondent Akademii nauk SSSR.
(Euler, Leonhard, 1707-1783)

SOV/26-58-1-12/36

AUTHOR: Delaunay, B.N., Corresponding Member of the USSR Academy of Sciences

TITLE: The Supporting Force of the Aircraft Wing (O podderzhivayushchey sile kryla samoleta) The Fiftieth Anniversary of the Publication of Zhukovskiy's Paper "On Adjoined Vorticity" (K 50-letiyu so dnya opublikovaniya stat'i N.Ye. Zhukovskogo "O pri-soyedinennyykh vikhryakh")

PERIODICAL: Priroda, 1958, Nr 1, pp 73-82 (USSR)

ABSTRACT: N.Ye. Zhukovskiy published his paper titled "On Adjoined Vorticity" in "Trudy Otdeleniya fizicheskikh nauk Obshchestva lyubiteley, estestvoznaniya" in 1907. In this article he derived a formula by which the supporting force of the aircraft wing is basically calculated. Many diverse derivations of this formula have been suggested. This article presents one more new derivation of Zhukovskiy's formula by a very simple and elementary method, understandable to any technician or person of average knowledge. Riemann's lemma and that on the accelerations of a given and a conjugate flow, and Bernoulli's theorem are quoted. From them it can be concluded that

Card 1/2

SOV/26-58-1-12/36

The Supporting Force of the Aircraft Wing. The Fiftieth Anniversary of
the Publication of Zhukovskiy's Paper "On Adjoined Vorticity"

Zhukovskiy's theorem gives the supporting force of the air-
craft wing regarding magnitude and direction.
There are 13 diagrams and 1 photo.

ASSOCIATION: Matematicheskii institut i. V.A. Steklova Akademii nauk SSSR,
Moskva (Mathematical Institute imeni V.A. Steklov of the USSR
Academy of Sciences, Moskva)

Card 2/2

VINOGRADOV, A.; DELONE, B.^N; FUKS, D.

Rational approximations of irrational numbers with bounded partial
quotients. Dokl. AN SSSR 118 no.5:862-865 F '58. (MIRA 12:1.)

1. Chlen-korrespondent AN SSSR (for Delone).
(Numbers, Theory of)

~~DELONE, B.;~~ ZHITOMIRSKIY, O. [deceased]; IVASHEV-MUSATOV, O.S., red.;
GOLUBKOVA, L.A., tekhn.red.

[Problems in geometry] Zadachnik po geometrii. Izd.7., stereo-
tipnoe. Moskva, Gos.izd-vo fiziko-matem.lit-ry, 1959. 294 p.
(MIRA 12:11)

(Geometry--Problems, exercises, etc.)

SHMIDT, Otto Yul'yevich, akademik [deceased]; KURCSEH, A.G., doktor fiz.-matem. nauk, otv.red.toma; GRIGOR'YEV, A.A., akademik, red.; ~~DELONE~~, B.N., red.; KALASHNIKOV, A.G., doktor fiz.-matem.nauk, red.; KOZLOVSKAYA, S.V., red.; LEBEDINSKIY, A.I., doktor fiz.-matem.nauk, red.; LEVIN, B.Yu., doktor fiz.-matem.nauk, red.; MAL'TSEV, A.I., red.; KHIL'MI, G.F., doktor fiz.-matem.nauk, red.; SHEVELEV, M.I., general-leytenant, red.; POLENOVA, T.P., tekhn.red.

[Selected works; mathematics] Izbrannye trudy; matematika. Moskva, Izd-vo Akad.nauk SSSR, 1959. 315 p. (MIRA 12:2)

1. Chlen-korrespondent AN SSSR (for Delone, Mal'tsev).
(Groups, Theory of)

MOGAN, Ya.B., red.-sostavitel'; ALEKSANDROV, akademik, otv.red.; KALASHNIKOV, A.G., doktor fiz.-mat.nauk, red.; GRIGOR'YEV, A.A., akademik, red.; DELONE, B.N., red.; KOZLOVSKAYA, S.V., red.; KUROSE, A.G., doktor fiz.-mat.nauk, red.; LEBEDINSKIY, A.I., doktor fiz.-mat.nauk, red.; LEVIN, B.Yu., doktor fiz.-mat.nauk, red.; MAL'TSEV, A.I., akademik, red.; KHIL'MI, G.F., doktor fiz.-mat.nauk, red.; SHEVELEV, M.I., geroy Sovetskogo Soyuza, red.; PROKOF'YEVA, N.B., red.izd-va; POLENOVA, T.P., tekhn.red.

[Otto IUL'evich Shmidt; his life and works. A collection devoted to a hero of the Soviet Union, Academician Otto IUL'evich Shmidt, 1891-1956]
Otto IUL'evich Shmidt; zhizn' i deiatel'nost'. Sbornik, posviashchennyi geroiu Sovetskogo Soyuza akademiku Otto IUL'evichu Shmidt, 1891-1956.
Moskva, 1959. 469 p. (MIRA 12:12)

1. Akademiya nauk SSSR. 2. Chlen-korrespondent AN SSSR (for Delone).
(Shmidt, Otto IUL'evich, 1891-1956)

GAUSS, Karl Fridrikh [Gauss, Karl Friedrich]:[deceased]; DEM'YANOV, V.B. kand.fiz.-matem.nauk [translator]; VINOGRADOV, I.M., akademik, obshchiy red.; PETROVSKIY, I.G., akademik, red.; KUZNETSOV, I.V., kand.filos.nauk, red.; ANDREYEV, N.N., akademik, red.; KAZANSKIY, B.A., akademik, red.; SHCHERBAKOV, D.I., akademik, red.; YUDIN, P.P., akademik, red.; DELONE, B.N., red.; KOSHTOYANTS, Kh.S., red.; SAMARIN, A.M., red.; LEBEDEV, D.M., prof., red.; FIGUROVSKIY, N.A., prof., red.; RYVKIN, A.Z., red.izd-va; MAKOGONOVA, I.A., tekhn.red.

[Works pertaining to the theory of numbers] Trudy po teorii chisel. Obshchaya red. I.M.Vinogradova. Kommentarii B.N.Delone. Moskva, Izd-vo Akad.nauk SSSR, 1959. 978 p. (MIRA 13:2)

1. Chleny-korrespondenty AN SSSR (for Delone, Koshtoyants, Samarin).

(Numbers, Theory of)

16(1)

AUTHOR: Delone, B. N.

SOV/38-23-3-3/6

TITLE: Theory of Planigons

PERIODICAL: Izvestiya Akademii nauk SSSR, Seriya matematicheskaya, 1959,
Vol 23, Nr 3, pp 365-386 (USSR)

ABSTRACT: According to Ye.S.Fedorov a planigon is a polygon with which a schlicht, dense, and uniform covering of the plane is possible. The author joins the classification of planes due to Laves [Ref 3] (compare also Shubnikov [Ref 2]) and gives a rigorous purely topological proof for the existence of 11 and only 11 topologically different regular lattices of planes which satisfy certain conditions. Then the fundamental regions of two-dimensional Fedorov groups are considered and their relations to the above mentioned lattices of planes are investigated. It is shown that the theory of Fedorov groups can be established completely on the base of the combinatoric topology. The author thanks D.K.Faddeyev for the examination of some partial results. The author announces a publication by N.N.Sandakova on a similar problem.

There are 12 figures, 6 tables, and 5 references, 2 of which are Soviet, 2 German, and 1 Canadian.

SUBMITTED: June 26, 1958
Card 1/1

DELO NE, B.N.

Eminent Italian physicist and mathematician; on the 350th anniversary of the birth of Evangelista Torricelli. Priroda 48 no.2:77-80 F '59.
(MIRA 12:3)

1. Chlen-korrespondent AN SSSR, Moskva.
(Torricelli, Evangelista, 1608-1647)

DELONE, B. N.

~~"11-12"~~ Zur Reduktionstheorie."

Institute of Mathematics, I Akademicheskii proezd 8, Moscow, USSR.

paper submitted for 5th Gen. Assembly, Symposium on Lattice Defects, Intl. Union of Crystallography, Cambridge U.K. Aug. 1960.

DELONE, B.N.

On the theory of reduction. Kristallografiia 5 no.4:501-507 51-Ag
'60. (MIRA 13:9)

1. Matematicheskii institut im. V.A.Steklova.
(Lattice theory)

DELONE, B. M.

Bolyai and Lobachevskii, Priroda 49 no.7:70-73
J1 '60. (MIRA 13:7)

1. Chlen-korespondent Akademii nauk SSSR.
(Bolyai, Janos, 1802-1860)
(Lobachevskii, Nikolai Ivanovich, 1793-1856)

SEMIOT, Otto Yul'yevich [deceased]; LEBEDINSKIY, A.I., doktor fiz.-matem. nauk, otv.red.toma; LEVIN, B.Yu., doktor fiz.-matem.nauk, otv.red.toma; KHIL'MI, G.F., doktor fiz.-matem.nauk, otv.red.toma; KALASHNIKOV, A.G., doktor fiz.-matem.nauk, red.; GRIGOR'YEV, A.A., akademik, red.; DELONE, B.N., red.; KOZLOVSKAYA, S.V., red.; KUROSH, A.G., doktor fiz.-matem.nauk, red.; MAL'TSEV, A.I., akademik, red.; SHEVELEV, M.I., general-leytenant, Geroy Sovetskogo Soyuza, red.; NOVICHKOVA, N.D., tekhn.red.; KASHINA, P.S., tekhn.red.

[Selected works; geophysics and cosmogony] Izbrannye trudy: geofizika i kosmogoniia. Moskva, Izd-vo Akad.nauk SSSR, 1960. 209 p. (MIRA 14:1)

(Cosmogony) (Geophysics)
(Schmidt, Otto IUL'evich, 1891-1956)

LOMONOSOV, Mikhail Vasil'yevich; TOPCHIEV, A.V., akad., red.; PETROVSKIY, I.G., akad., red.; ANDREYEV, P.N., akad., red.; BYKOV, K.M., akad., red.; KAZANSKIY, V.A., akad., red.; SHMIDT, O.Yu., akad., red.; SHCHERBAKOV, D.I., akad., red.; YUDIN, P.F., akad., red.; DELONE, B.N., red.; KOSH-TOYANTS, Kh.S., red.; SAMARIN, A.M., red.; LEBEDEV, D.M., prof., red.; FIGUROVSKIY, N.A., prof., red.; KUZNETSOV, I.V., kand. filos. nauk, red.; BERKOVICH, D.M., red. izd-va; NOVICHKOVA, N.D., tekhn. red.; KASHINA, P.Ye., tekhn. red.

[Selected works in chemistry and physics] Izbrannye trudy po khimii i fizike. Red. A.V.Topchieva. Stat'ia N.A.Figurovskogo. Primechania G.A.Andreevoi, O.A.Lezhnevoi i N.A.Figurovskogo. Moskva, Izd-vo Akad. nauk SSSR, 1961. 560 p. (MIRA 14:11)

1. Chlen-korrespondent AN SSSR (for Delone, Koshtoyants, Samarin).
(Lomonosov, Mikhail Vasil'evich, 1711-1765)
(Chemistry) (Physics)

DELONE, B.N.; SANDAKOVA, N.N.

Theory of stereohedrons. Trudy Mat.inst. 64:28-51 '61.
(Polyhedra) (Topology) (Hyperspace) (MIRA 15:3)

DELONE, B.N.

Proof of the fundamental theorem in the theory of stereohedra.
Dokl. AN SSSR 138 no.6:1270-1272 Je '61.

(MIRA 14:6)

1. Chlen-korrespondent AN SSSR.

(Topology)

GAYUI, Rene Zhyust [Hauy, Rene-Just]; SHAFRANOVSKIY, I.I., prof.;
 ZABOTKINA, O.S. [translator]; STRATANOVSKIY, G.A. [translator];
 SHUBNIKOV, A.V., akademik, red.; BOKIY, G.B., red.;
 PETROVSKIY, I.G., akademik, red.; ANDREYEV, N.N., akademik, red.;
 KAZANSKIY, B.A., akademik, red.; YUDIN, P.F., akademik, red.;
 DELONE, B.N., red.; SAMARIN, A.M., red.; ZUBOV, V.P., prof., red.;
 LEBEDEV, D.M., prof., red.; FIGUROVSKIY, N.A., prof., red.;
 KUZNETSOV, I.V., kand. filos. nauk, red.; OZNOBISHIN, D.V., kand.
 istor. nauk, red.; SUSHKOVA, T.I., red. izd-va; SMIRNOVA, A.V.,
 tekhn. red.

[Structure of crystals; selected works] Struktura kristallov;
 izbrannye trudy. Sostavlenie, stat'ia i primechania I.I.
 Shafranovskogo. Redaktsia A.V. Shubnikova i G.B. Bokiia. Mo-
 skva, Izd-vo Akad. nauk SSSR, 1962. 175 p. Translated from the
 French. (MIRA 15:3)

1. Chlen-korrespondent Akademii nauk SSSR (for Boki, Delone,
 Samarin).

(Crystallography)

AGRIKOLA, Georgiy [Agricola, Georg]; GAL'MINAS, V.A.[translator];
 DROBINSKIY, A.I.[translator]; SHUKHARDIN, S.V., red.;
 PETROVSKIY, I.G., akademik, red.; ANDREYEV, N.N., akademik,
 red.; KAZANSKIY, B.A., akademik, red.; YUDIN, P.F., akademik,
 red.; ~~DELONE, F.N.~~, red.; SAMARIN, A.M., red.; ZUEV, V.P.,
 prof., red.; LEBEDEV, D.N., prof., red.; FIGUROVSKIY, N.A.,
 prof., red.; KUZNETSOV, I.V., doktor filos. nauk, red.;
 BORODINA, R.M., red. izd-va; YEPIFANOVA, L.V., tekhn. red.;
 DOROKHINA, I.N., tekhn. red.

[Mining and metallurgy; in twelve books] O gornom dele i metal-
 lurgii; v dvenadtsati knigakh. Red. S.V.Shukhardina, perevod i
 primechania V.A.Gal'minasa i A.I.Drobinskogo. Moskva, Izd-vo
 Akad. nauk SSSR, 1962. 597 p. (MIRA 15:8)

1. Chlen-korrespondent Akademii nauk SSSR (for Delone, Samarin).
 (Mines and mineral resources)
 (Metalwork)

S/025/62/000/011/001/005
D222/D308

AUTHOR: Delone, B.N., Corresponding Member of AS USSR

TITLE: Mathematics and the cosmos

PERIODICAL: Nauka i zhizn', no. 11, 1962, 27-28

TEXT: This is a brief discussion of the mathematical problems involved in space flight: gas dynamics, overheating on re-entry into the atmosphere, the behavior of systems under dynamic loading, automatic control, information theory, orbit calculations, computational techniques, gravitational problems. ✓

Card 1/1

DELONE, B.N.

X rays and crystals; 50th anniversary of Max Laue's discovery.
Priroda 51 no.12:85-87 D '62. (MIRA 15:12)

1. Chlen-korrespondent AN SSSR.
(X-ray crystallography)

DELONE, B.N.

Mathematics and space. Nauka i zhizn' 29 no.11:27-28 N '62.
(MIRA 16:1)

1. Chlen-korrespondent AN SSSR.
(Astronautics) (Mathematics)

DELONE, B.N. [Delaunay, B.N.]

Great French mathematician: Joseph Lagrange and his analytical
mechanics. Priroda 51 [i.e. 52] no.5:85-87 '63.
(MIRA 16:6)

1. Chlen-korrespondent AN SSSR.

(Lagrange, Joseph Louis, Comte, 1736-1813)

DELONE, B.N. (Moskva); VINOGRADOV, V.S., kand.fiz.-matem.nauk (Moskva);
KUDRYAVTSEV, L.D., doktor fiz.-matem.nauk (Moskva)

New contribution to mathematics. Priroda 52 no.10:55-56 '63.
(MIRA 16:12)

1. Chlen-korrespondent AN SSSR (for Delone).

DELONE, B.N.

Regular divisions of space. Priroda 52 no.2:60-63 '63. (MIRA 16:2)

1. Chlen-korrespondent AN SSSR.
(Crystallography, Mathematical)